OBJECTIVES: Asthma is a chronic disorder requires continuous and long term management. Thus it makes the patient economically week and produces more burden on patient. Short acting $\beta_2$agonists in pressurized metered dose inhalers and dry powdered inhalers are the most commonly prescribed formulations in south Indian clinical settings. The present study aims to investigate and to select appropriate cost effective formulation of metered dose inhalers (MDR) or dry powdered inhalers (DPI) for salbutamol. **METHODS:** It is a prospective comparative study conducted among subjects those who were newly diagnosed with asthma. The patients were divided into two groups based on the type of inhaler used such as MDI or DPI group. All the patients were counseled about the usage of inhalers during their treatment device allotment. Quality of life and FEV 1 were measured at the baseline visit. In addition to that data related to direct cost such as medical, laboratory and re- hospitalization costs were also measured at baseline. Follow up was done for both the groups. Similar to baseline visit quality of life, FEV1 and direct medical costs were measured during follow up. **RESULTS:** The present study results shows that there is no significant difference between two groups with regards to demographic characteristics. We observed a significant difference in QOL ($p < 0.05$) and the mean score for two treatment devices groups was found to be 55.63 &43.72 respectively. There is no significant difference in FEV 1 ($p > 0.05$) and symptom free days between two treatment devices. Average cost effectiveness ratio was calculated and average cost effectiveness ratio for MDI were found to be less compared to DPI but statistically not significant. **CONCLUSIONS:** Overall it was found that efficacy was higher in MDI than DPI and cost was equal for both the groups to treat newly diagnosed asthma patients with salbutamol.

PRS47
COST-EFFECTIVENESS ANALYSIS OF COMMUNITY-ACQUIRED PNEUMONIA TREATMENT

Zaytsev A[1], Makarevich A[2], Kondratyeva T[3]

[1]*The Main Military Clinical Burdenko Hospital, Moscow, Russia,* [2]*The 301 Military Clinical Hospital, Khabarovsk, Russia,* [3]*The 1586 Military Clinical Hospital, Podolsk, Russia*

OBJECTIVES: To evaluate clinical efficacy, safety and cost-effectiveness of treatment options for mild to moderate community-acquired pneumonia in patients with risk factors of poor efficacy (prior administration of antibiotics, comorbidities), comparing generic levofloxacin (Glevo, Glenmark Pharmaceuticals Ltd.) versus original levofloxacin (Tavanic®, Sanofi-Winthrop Ind.) and conventional treatment (b-lactam±macrolide). **METHODS:** Patients were randomized to 3 treatment arms. Mean age was 24.3±11.5years. Treatment arm 1 included 61 patient administered GLEVO in the dose of 500 mg/day, whereas in the treatment arm 2 (n=41) patients were treated with original levofloxacin (Tavanic) in the dose of 500mg/day, and 45 patients in the treatment arm 3 received conventional therapy. Clinical efficacy and safety were evaluated based on clinical, laboratory and radiological data analysis. Cost-effectiveness analysis included calculation of direct medical expenses and cost-effectiveness ratios (CER). **RESULTS:** Clinical efficacy rate in the treatment arm 1 (Glevo) was98.4%, in the treatment arm 2 (Tavanic)–97.6%, whereas conventional therapy efficacy rate was84.4%. Adverse event incidence in the treatment arm 1 was 21.3%, in treatment arms 2 and 3 –14.6% and35.5% respectively. Treatment duration in the Glevo treatment arm was8.2±1.4days, in the treatment arm2 –8±1.2, in the conventional therapy arm–7.2±2,1 days. Time to radiological resolution of pneumonia was comparable. Mean cost of antibiotic administration cycle and the cost-effectiveness ratio in patients administered Glevo was 7.65€ (CER_{GLEVO} = 7.8), in the treatment arm 2 – 22.4€ (CER_{TAV}=22.9), in the conventional therapy arm–10.8€ (CER_{STAND}= 12.8). **CONCLUSIONS:** Administration of levofloxacin for mild to moderate community-acquired pneumonia in patients with risk factors is superior in clinical efficacy compared to conventional treatment modalities. Administration of Glevo is characterized by favorable cost-effectiveness parameters.

PRS48
ECONOMIC EVALUATION OF THE FIXED DOSE COMBINATION OF INDACATEROL/ GLYCOPYRROMIUM, AS A MAINTENANCE BRONCHODILATOR TREATMENT IN ADULT MEXICAN PATIENTS WITH COPD

Reyes Lopez A[1], Lemus Carmona EA[2], Ruiz Miranda CI[2], Fernandez Plata MDR[3], Martínez Briseño D[3]

[1]*Center for Economic and Social Studies in Health, Mexican Children Hospital, Mexico, Mexico,* [2]*Novartis Mexico, Mexico, Mexico,* [3]*National Institute of Respiratory Disease, Mexico, Mexico*

OBJECTIVES: To perform a cost-effectiveness analysis of Indacaterol/ Glycopyrronium (IG) against tiotropium monotherapy (TM), salmeterol/fluticasone (SF) and indacaterol/tiotropium (IT) for COPD patients from the perspective of the Mexican Public Healthcare System. **METHODS:** A patient-simulation model structured in MS Excel, developed and validated by Asukai et al (2013), allowed us to compare IG against tiotropium monotherapy (TM), salmeterol/fluticasone (SF) and indacaterol/tiotropium (IT). The effectiveness measures analyzed were life years gained and exacerbations avoided based on efficacy data extracted from a comprehensive large phase III trial program comprising 11 studies (ILLUMINATE, SHINE, BRIGHT, ENLIGHTEN, SPARK, BLAZE, ARISE, BEACON, RADIATE, LANTERN, FLAME) with more than 10,000 patients across 52 countries. COPD drug cost, maintenance cost and exacerbation cost were estimated for six months duration of model cycle, using local prices for public health care institutions and evaluating the resources utilization data extracted from a sample of medical records. Lifetime horizon was used and a discount rate of 5%. Deterministic and probabilistic sensitivity analysis was performed. **RESULTS:** Total expected costs per patient were US$30,421 and US$31,577 for the comparison IG vs TM respectively; US$28,817 and US$28,852 for IG vs SF respectively; US$28,900 and US$34,557 for IG vs IT respectively. IG delivers slightly more life years than comparators, but avoid significantly more exacerbations than the other options (1 to 4) which in turn have favorable economic impacts. Sensitivity analysis showed that base-case results are robust to variations of key model parameters. **CONCLUSIONS:** Indacaterol/ Glycopyrronium resulted more effective and less costly than comparators. These results showed that is possible to achieve cost-savings and a potential clinical benefit with the fixed dose of IG for Mexican patients with COPD.

PRS49
COST- EFFECTIVENESS OF REAL LIFE ASTHMA PHARMACOTHERAPY

Grekova D[1], Dimitrova M[2], Andreevska K[1], Petkova V[3], Madzharov V[1], Gueorguiev S[1], Petrova G[4]

[1]*Medical University of Plovdiv, Plovdiv, Bulgaria,* [2]*Medical University of Sofia, Faculty of Pharmacy, Sofia, Bulgaria,* [3]*Medical University, Faculty of Pharmacy, Sofia, Bulgaria,* [4]*Medical University Sofia, Faculty of Pharmacy, Sofia, Bulgaria*

OBJECTIVES: To analyze ambulatory prescribing practice and to assess the cost-effectiveness of asthma pharmacotherapy in country settings. **METHODS:** It is a prospective prescribing practice and cost-effectiveness analysis. During 2008-2011 were observed 238 patients in Plovdiv region and collected information about their ambulatory asthma pharmacotherapy. Prescribed medicines were systematized in INN groups of mono and fixed dose combination products. The FEO1 and percentage of patients without exacerbation were used as measure of the therapeutic results. Incremental cost-effectiveness ratio was calculated and with Tornado diagram was explored the sensitivity of the results. **RESULTS:** Pharmacotherapy with fixed dose combination was performed mainly with Beclomethazone/formoterol; Budesonide/ formoterol; and Salmeterol/fluticasone. The monthly cost of pharmacotherapy is varying among 35 and 50 Euro. Incremental cost effectiveness ratio is favoring the combination Beclomethazone/ formoterol 100/6 mcg with ICER of 324 Euro for additional increase in FEO1, and 50 Euro ICER for additional patient without exacerbation, although all alternatives are cost-effective because all ICERs fall below the GDP per capita. The monotherapy was performed with Beclomethazone, Fluticasone, Budesonide, Ciclesonide, and Montelukast. Its monthly cost was among 19 and 40 Euro. Incremental cost effectiveness ratio is favoring ciclesonide that is a dominant alternative as monotherapy for both studies outcomes. Results are sensitive to the changes in therapeutic outcomes. **CONCLUSIONS:** The real life therapy follows the international guidelines but less fixed dose combinations were prescribed in comparison with international recommendations. Beclomethazone/ formoterol fixed dose combination and ciclesonide as monotherapy are cost-effective alternatives for the observed health care settings.

PRS50
COST-EFFECTIVENESS ANALYSIS OF HIGH-DOSE LEVOFLOXACIN THERAPY OF PATIENTS WITH COMMUNITY-ACQUIRED PNEUMONIA

Zaytsev A[1], Makarevich A[2]

[1]*The Main Military Clinical Burdenko Hospital, Moscow, Russia,* [2]*The 301 Military Clinical Hospital, Khabarovsk, Russia*

OBJECTIVES: Study of clinical efficacy, tolerance and economic indicators of treatment of non-severe CAP by (5-day) course of levofloxacin 750 mg/day vs. the standard administration of levofloxacin 500 mg/day. **METHODS:** The research included 64 patients having non-severe CAP with risk factors (administration of antibiotics during the preceding 3 months, concomitant diseases), all of them being males. The patients were randomized into 2 groups; the 1st group received high-dose therapy of levofloxacin, 750 mg/day within 5 days (Remedia, Simpex-Pharma, India). 2nd group recieved levofloxacin 500 mg/day for 7-10 days (Tavanic®, Sanofi-Winthrop Ind.). Efficacy and safety were assessed in terms of comprehensive analysis of clinical, laboratory and radiological data. For economic analysis, direct medical costs and "costs-efficacy" ratios (CER) were calculated. **RESULTS:** First group included 32 patients with average age 22.7±1.8 years. Second group consisted of 32 patients with average 21.8±6 years. Clinical efficacy of high-dose levofloxacin therapy amounted to 96.9%. Average duration of antibiotic treatment was 5.2±0.9 days.. Standard regime by levofloxacin was efficient in 100% of cases. Radiological resolution was identical in both groups. Transient increase of hepatic transaminase activity was present in 3 patients (9.4%). In standard group, this adverse event was present in 4 patients (12.5%). Average treatment cost by levofloxacin 750 mg/day amounted to 13.3±6.2 euros ($CER_{LEVO-750}$=13.7); cost of the standard therapy was 27.2±4.9 euros ($CER_{LEVO-750}$=27.2). **CONCLUSIONS :** Therefore, in terms of clinical efficacy and safety, the high-dose therapy (750 mg/day) by levofloxacin, in brief course of treatment of patients having non-severe CAP, is comparable with the standard regime of treatment (levofloxacin 500 mg/day for 7 to 10 days); and, is more efficient in economic terms.

PRS51
COST-EFFECTIVENESS OF ASTHMA MANAGEMENT IN A HOSPITAL-BASED ADULT ASTHMA CLINIC IN SPAIN

Perez de Llano LA[1], Villoro R[2], Hidalgo A[3], Merino M[2]

[1]*Hospital Universitario Lucus Augusti, Lugo, Spain,* [2]*Instituto Max Weber, Madrid, Spain,* [3]*University of Castilla La Mancha, Toledo, Spain*

OBJECTIVES: Optimal asthma control has been associated with significant reductions in mortality, morbidity, and quality of life gains for the patients. Hospital Asthma Clinics (ACs) are hospital-based units run by an experienced team composed of a pneumologist and a specialized nurse. Their aim is to provide effective treatment and optimal control to asthma patients. However, their impact on disease control and their cost-effectiveness are unknown. The objective of this study is to assess the cost-effectiveness of managing asthma patients in an AC versus traditional management. **METHODS:** We designed a case-crossover study using the medical records of all patients submitted to one AC in Spain during 2012. We defined the case period as 365 days after the first visit to the AC, and the control period as 365 days before the index date. We calculated changes in relevant disease control indicators and estimated the Incremental Cost Effectiveness Ratio (ICER) for one additional controlled patient. **RESULTS:** The percentage of controlled patients increased from 41% to 86% (n=83, mean age was 49 ± 15.2; 66% female). Asthma control test score increased from 18.7 ± 4.6 to 22.6 ± 2.3 ($p<0.005$), exacerbations decreased by 75% ($p<0.005$) and FEV1 increased from 81.4% ± 17.5 to 84.4% ± 16.6 ($p<0.05$). The use of ICS/LABA combinations decreased from 79.5% to 41%. On the contrary, the use of other drugs increased: anticholinergics from 3.6% to 16.9%, inhaled corticosteroids